





DOD YEAR 2000 COMPUTING PROBLEM REPORTS: LESSONS LEARNED FROM THE DEFENSE INTEGRATION SUPPORT TOOLS DATABASE

Report No. 98-169

June 29, 1998

Office of the Inspector General Department of Defer--

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Acronyms

DIST Defense Integration Support Tools

CIO Chief Information Officer

OMB Office of Management and Budget

Y2K Year 2000



INSPECTOR GENERAL DEPARTMENT OF DEFENSE 400 ARMY NAVY DRIVE ARLINGTON, VIRGINIA 22202

June 29, 1998

MEMORANDUM FOR ASSISTANT SECRETARY OF DEFENSE (COMMAND, CONTROL, COMMUNICATIONS, AND INTELLIGENCE)

SUBJECT: Audit Report on DoD Year 2000 Computing Problem Reports: Lessons Learned From the Defense Integration Support Tools Database (Report No. 98-169)

We are providing this audit report for your use. The primary purpose is to provide the DoD Chief Information Officer and other senior DoD managers with an independent assessment of the DoD progress related to year 2000 conversion efforts.

We considered management comments on a draft of this report when preparing the final report. You concurred with all the draft recommendations.

We appreciate the courtesies extended to the audit staff. Questions on the audit should be directed to Ms. Mary Lu Ugone at (703) 604-9049 (DSN 664-9049) or Mr. James W. Hutchinson at (703) 604-9060 (DSN 664-9060). See Appendix D for the report distribution. The audit team members are listed inside the back cover.

Robert J. Lieberman Assistant Inspector General for Auditing

Office of the Inspector General, DoD

Report No. 98-169 (Project No. 8AS-0017) June 29, 1998

DoD Year 2000 Computing Problem Reports: Lessons Learned From the Defense Integration Support Tools Database

Executive Summary

Introduction. Information technology systems have typically used two digits to represent the year, such as "98" representing 1998, to conserve electronic data storage and reduce operating costs. With the two-digit format, however, the year 2000 is indistinguishable from 1900. As a result of that ambiguity, computers and associated systems and application programs that use dates to calculate, compare, and sort could generate incorrect results when working with years after 1999.

This report is one of a series of reports that the Inspector General, DoD, is issuing in accordance with an informal partnership with the Chief Information Officer, DoD, to monitor DoD efforts to address the year 2000 computing challenge.

Audit Objectives. The overall audit objective was to identify significant time-sensitive issues related to DoD year 2000 reporting requirements and oversight actions and to quickly report those issues to senior DoD management. Specifically, we evaluated the problems in managing the Defense Integration Support Tools Database and how DoD can apply the lessons learned to a replacement database.

Audit Results. Currently, DoD has no viable repository of year 2000 information that DoD managers can use for tracking, reporting, monitoring, and overseeing DoD year 2000 compliance efforts. Previously, DoD used the Defense Integration Support Tools Database as the official repository of DoD year 2000 information, but discontinued it for year 2000 use. Further, DoD managers were unable to rely on the Defense Integration Support Tools Database for reporting and oversight purposes. Consequently, DoD managers do not have a DoD-wide automated mechanism for year 2000 reporting and oversight purposes. However, the DoD Chief Information Officer has recognized the importance of having a DoD-wide inventory of systems for tracking and reporting year 2000 efforts and has taken action to develop a new database tool to replace the Defense Integration Support Tools Database for year 2000 use.

Summary of Recommendations. We recommend an immediate replacement database for the Defense Integration Support Tools Database to track, monitor, report, and oversee DoD year 2000 efforts. We recommend application of the lessons learned from the Defense Integration Support Tools Database to the replacement database. Specifically, the replacement database should provide reliable information for tracking,

monitoring, reporting, and overseeing DoD year 2000 efforts; allow for flexibility to accommodate changes in external reporting requirements; provide compatibility with DoD Component internal databases for effective importing of data; and include controls for entering data to affix responsibility for accuracy at the DoD Component Year 2000 designated office level.

Management Comments. The Assistant Secretary of Defense (Command, Control, Communications, and Intelligence) concurred with all recommendations and described initial actions taken to implement the replacement database and to avoid problems associated with the prior database. See Part I for a summary of management comments and Part III for the complete text of the comments.

Audit Response. Management comments were generally responsive. We will track implementation of the new database and of the reliability of inputs to that database through our continuing audit oversight of this area, as well as normal audit followup procedures. No additional comments are required.

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Part I - Audit Results

Audit Background

The year 2000 (Y2K) problem is the term most often used to describe the potential failure of information technology systems to process or perform date-related functions before, on, or after the turn of the next century. The Y2K problem is rooted in the way that dates are recorded and computed in automated information systems. For the past several decades, systems have typically used two digits to represent the year, such as "98" representing 1998, to conserve electronic data storage and to reduce operating costs. With the two-digit format, however, the year 2000 is indistinguishable from 1900, or 2001 from 1901, and so forth. As a result of the ambiguity, system or application programs that use dates to perform calculations, comparisons, or sorting could generate incorrect results when working with years following 1999. Calculation of Y2K dates is further complicated because the Y2K is a leap year, the first century leap year since 1600. The computer systems and applications must recognize February 29, 2000, as a valid date.

Because of the potential failure of computers to run or function throughout the Government, the President issued an Executive Order, "Year 2000 Conversion," February 4, 1998, making it policy that Federal agencies ensure that no critical Federal program experiences disruption because of the Y2K problem. The Executive Order also requires that the head of each agency ensure that efforts to address the Y2K problem receive the highest priority attention in the agency. In addition, the General Accounting Office has designated resolution of the Y2K problem as a high-risk area, and DoD has recognized the Y2K issue as a material management control weakness area in the FY 1997 Annual Statement of Assurance.

DoD Y2K Management Strategy. In his role as the DoD Chief Information Officer (CIO), the Assistant Secretary of Defense (Command, Control, Communications, and Intelligence) issued the "DoD Year 2000 Management Plan" (Management Plan) in April 1997. The Management Plan provides the overall DoD strategy and guidance for inventorying, prioritizing, fixing, or retiring systems, and monitoring progress. The Management Plan states that the DoD Chief Information Officer has overall responsibility for overseeing the DoD solution to the Y2K problem. Also, the Management Plan makes the DoD Components responsible for the five-phase Y2K management process, including awareness, assessments, renovations, validations, and implementation actions. The Management Plan includes a description of the five-phase Y2K management process.

The Assistant Secretary of Defense (Command, Control, Communications, and Intelligence) is in the process of issuing an updated DoD Management Plan, which accelerates the target completion dates for the renovation, validation, and implementation phases.

In a memorandum dated January 20, 1998, for the heads of executive departments and agencies, the Office of Management and Budget (OMB)

established a new target date for March 1999 for implementing corrective actions to all systems. The new target completion dates are September 1998 for the Renovation phase and January 1999 for the Validation phase.

Audit Objectives

The primary objective of the audit is to identify significant time-sensitive issues related to DoD Y2K reporting requirements and oversight actions and to quickly report those issues to senior DoD management. Specifically, we evaluated the problems in managing the Defense Integration Support Tools Database (DIST) and how DoD can apply the lessons learned from the DIST to a replacement database. See Appendix A for a discussion of the scope and methodology and for a summary of prior coverage.

DoD Year 2000 Reporting and Management Oversight

Currently, DoD has no viable repository of Y2K information that DoD managers can use for tracking, reporting, monitoring, and overseeing DoD Y2K compliance efforts. Previously, DoD used the DIST as the official repository of Y2K information, but discontinued it for Y2K use because of national security concerns. Further, DoD managers were unable to rely on DIST data for reporting and oversight purposes. The DIST was unreliable because the data were incomplete and inconsistent with the DoD Component quarterly reports. Consequently, DoD managers do not have a DoD-wide automated mechanism for Y2K reporting and oversight purposes. However, the DoD CIO has recognized the importance of having a DoD-wide inventory of systems for tracking and reporting Y2K efforts and has taken action to develop a new database tool to replace the DIST for Y2K use. The new database tool may also encounter data unreliability unless DoD applies the lessons learned from the DIST.

Recent Developments

The DoD CIO designated the DIST as the official repository of Y2K information for DoD. The DoD CIO intended the DIST to be used by DoD managers to track and monitor the transition to Y2K compliance for mission-critical and other designated systems. The DIST was an unclassified system until February 4, 1998, when the DoD CIO issued a memorandum classifying DIST data as secret. The decision was based on a National Security Agency review that determined that the vulnerability of the information in the DIST was a threat to national security, and on March 20, 1998, the DoD CIO decided that DoD would no longer use the DIST for Y2K data reporting requirements. Some DoD Components relied heavily on the DIST to track and report Y2K efforts and may be severely impacted until a replacement alternative to the DIST is developed.

Lessons Learned From the DIST

In developing the new database tool to replace the DIST for Y2K use, DoD should apply the lessons learned from the DIST. The DoD used the DIST only minimally for reporting and oversight purposes because the data were unreliable. Specifically, DIST data were incomplete and inconsistent with the DoD Component quarterly reports.

Reporting Requirements. The DoD CIO requires quarterly reports from the DoD Components to obtain the information needed for the OMB report. The

CIO had intended to use the DIST as a more effective, automated means of collecting Y2K information. However, DoD CIO staff stated that they did not use the DIST for OMB reporting because the data were unreliable.

OMB Reporting Requirements. The OMB requires DoD to submit a Y2K status report on a quarterly basis, due on the 15th of February, May, August, and November through 1999. The report provides OMB with a status of DoD Y2K compliance efforts and provides progress information to Congress and the public. To collect the information for the OMB report, the DoD CIO requires DoD Components to submit a report to the DoD CIO on a quarterly basis, due on the 18th of January, April, July, and October through 1999.

Changes in OMB Reporting Requirements. On January 20, 1998, OMB changed the Y2K reporting requirements for the quarterly reports. The OMB revised previous reporting requirements, established on May 5, 1997, by adding requirements for data exchanges, contingency planning, Government-wide systems, and other evidence of progress. The DIST replacement database needs to be flexible to allow for unexpected changes in OMB reporting requirements.

Reliability of DIST Data. We performed several analyses to determine the reliability of DIST data. Specifically, we analyzed DIST data for completeness of data fields and for consistency as compared with the February 1998 quarterly reports. The analyses showed that DIST data were inconsistent and incomplete for most DoD Components.

Consistency of DIST Data. We reviewed mission-critical system data in the DIST for 15 DoD Components. The 15 DoD Components represented 2,014 of the 2,915 total mission-critical systems reported by DoD in the February 1998 quarterly report to OMB. Using the same timeframe, we compared DIST data with the February 1998 reports for the 15 DoD Components. We extracted the DIST data on January 21, 1998, and the DoD CIO received the quarterly reports between January 15 and January 23, 1998. Of the 15 DoD Components reviewed, our analysis showed the following discrepancies.

- Of the 15 DoD Components, 14 had an inconsistent number of mission-critical systems in the DIST and the quarterly reports. For example, the Air Force reported 191 mission-critical systems in the DIST and 472 mission-critical systems in the February 1998 report.
- Of the 15 DoD Components, 10 had an inconsistent number of Y2K-compliant mission-critical systems in the DIST and the quarterly reports. For example, the Defense Information Systems Agency reported 36 Y2K-compliant mission-critical systems in the DIST and 21 Y2K-compliant mission-critical systems in the February 1998 report.
- Of the 15 DoD Components, 13 had an inconsistent number of mission-critical systems in the renovation, validation, implementation, and completed phases in the DIST and the quarterly reports. For example, the Army reported 11 mission-critical systems in the renovation phase in the DIST and 92 mission-critical systems in the renovation phase in the February 1998 report.

We considered the differences in the data in the DIST and the quarterly reports to be material. See Appendix B for the details of the analysis.

Completeness of DIST Data. We reviewed the Minimum Required Data Elements Completeness Report (the Report) to determine the percentage of complete fields in the DIST. According to the Report, the average percentage of complete Y2K data fields in the DIST was 59 percent, as of February 4, 1998. The Y2K fields that had the lowest percentage of completeness were as follows:

| Y2K Field in the DIST | Percent Complete |
|---------------------------|------------------|
| Actual Termination Date | 0.5 |
| Planned Termination Date | 14 |
| Hardware Cost | 47 |
| Software Budget Shortfall | 54 |

According to DIST staff, the Report deemed data fields incomplete when a blank field existed in a data field. The Report was made available to the DoD Components to reduce the number of blank fields in the DIST. Details of the Report are included in Appendix C.

DIST Editor Survey Results

To determine the cause of incomplete and inconsistent data, we interviewed DIST editors for six DoD Components. DIST editors stated that the data were incomplete and inconsistent with the quarterly reports because of the following:

- system program managers did not provide timely and accurate information to the DIST editors,
- DoD Component internal databases were not compatible with the DIST,
- DIST data fields menus did not consistently provide appropriate choices for some entries, and
 - the DIST needed user-friendly operational improvements.

System Program Managers. The inconsistency of DIST data and the quarterly reports was a result of system program managers reporting inaccurate and untimely information to DIST editors. DIST editors stated that they do not validate the information received from system program managers to ensure that

The Minimum Required Data Elements Completeness Report contains a listing of DoD Components and shows the percentage of complete data fields for each of the various categories of information in the DIST.

accurate and consistent data are entered in the DIST. The system program managers are a primary source of information for the status of Y2K compliance. The inconsistency of information may have been a result of DIST data not being updated in as timely a manner as the information in the quarterly reports. Additionally, DIST editors stated as a possible reason for inconsistent data that the pressure is on the system program managers to report their systems on schedule because OMB and DoD have recently moved up the Y2K compliant date from November to March 1999.

Compatible Databases. Some DoD Components maintain an internal database for tracking Y2K efforts and import data directly from their database into the DIST. Some databases do not effectively import data into the DIST because the data fields are not compatible with the DIST data fields. For example, the Air Force uses an internal database, called the Air Force Automated System Inventory Database, to track Y2K efforts. The Air Force database does not contain two DIST fields, "Application Compliant" and "Application Compliant Date." As a result, DIST data are incomplete for the fields. Additionally, the Air Force updates the DIST on a monthly basis using a batch file update process. The DIST editors for the Air Force stated that the batch update process is labor intensive, which reduces the frequency of updates because of resource limitations. Untimely updates may cause inconsistencies between DIST data and the information in the quarterly reports.

Appropriate Data Field Menu Choices. The DIST contained data fields that had menu choices that were not appropriate for some entries. For example, the DIST data fields "Planned Termination Date" and "Actual Termination Date" did not provide appropriate menu choices and accepted only a date entry. DIST editors stated that they left those fields blank because some systems were not planned to be terminated or had not been actually terminated. Entries such as "not applicable" or "no" were not accepted by the DIST for those fields. Because the DIST contained blank fields, a meaningful completeness analysis of data field entries could not be performed. The new replacement database should allow for appropriate menu choices to ensure that no blank fields will justifiably exist.

Operational Improvements. DIST editors stated that the DIST needed operational improvements to become more user friendly. The most common responses from DIST editors were that the DIST needed a user's manual and a faster response time for data entry. DIST editors needed a user's manual to clarify data field definitions and to provide adequate data entry procedures. A faster response time would allow for more updates by reducing resources spent entering data in the DIST.

Management Actions

During our audit, management took action to develop a DIST replacement tool for managing the DoD Y2K effort. The DoD CIO Y2K program office has initiated efforts to establish a database to collect and maintain DoD Y2K information. DoD will use the new database to provide external reports to OMB and Congress and to provide a current repository of system Y2K data for

oversight purposes. The DoD CIO is aware of the need to implement the replacement database, with appropriate controls in place to ensure the integrity of the data, as soon as possible.

Conclusion

The DoD CIO needs to apply the lessons learned from the DIST to the replacement database to avoid similar problems of unreliable data. The DoD CIO and DoD Components that relied on the DIST will be hampered by its absence until a replacement database is fully operational. Although a new database is being developed for Y2K, the CIO will still have to rely on each DoD Component to provide complete and accurate Y2K data.

Recommendations, Management Comments, and Audit Response

We recommend that the Assistant Secretary of Defense (Command, Control, Communications, and Intelligence), in the role of the DoD Chief Information Officer:

- 1. Immediately implement a replacement database for the Defense Integration Support Tools Database to track, monitor, report, and oversee DoD year 2000 efforts.
- 2. Apply the lessons learned from the Defense Integration Support Tools Database to the replacement database. Specifically, the replacement database should:
 - a. Provide reliable information for tracking, monitoring, reporting, and overseeing DoD year 2000 efforts.
 - b. Provide adequate management controls for data entry to affix responsibility for accuracy at the DoD Component Year 2000 designated office level.
 - c. Allow for flexibility to accommodate changes in Office of Management and Budget reporting requirements.
 - d. Be compatible with DoD Component internal databases for effective importing of data.
 - e. Allow for appropriate menu choices to eliminate blank fields.

Management Comments. The Office of the Assistant Secretary of Defense (Command, Control, Communications, and Intelligence) concurred with all recommendations and stated that the office had developed a replacement

DoD Year 2000 Reporting and Management Oversight

database to track, monitor, and report DoD Y2K efforts at a high level. The Assistant Secretary also described several initial actions already taken to implement the replacement database and to preclude recognized operational weaknesses associated with the DIST. The complete text of management comments is in Part III of this report.

Audit Response. We consider management comments to be generally responsive. Draft Recommendation 2.b. included a requirement for a high level certification of the validity of all data inputs. While citing improved management controls for data entry, management comments on Recommendation 2.b. did not address whether those controls include such a requirement, but noted that all input to the new database would be solely from the DoD Component designated offices. This clearly affixes responsibility for data accuracy to those offices. Therefore, we reworded Recommendation 2.b.

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Part II - Additional Information

Appendix A. Audit Process

This report is one in a series of reports being issued by the Inspector General, DoD, in accordance with an informal partnership with the DoD CIO, to monitor DoD efforts to address the Y2K computing challenge. For a listing of audit projects addressing this issue, see the Y2K webpage on IGnet at http://www.ignet.gov.

Scope

We reviewed the February 1998 Y2K reports in accordance with CIO reporting requirements and the requirements stated in the Management Plan. We evaluated DIST data for completeness of the Y2K data fields. We compared the DIST data with the February 1998 reports to determine consistency in information reported. We interviewed DoD CIO staff who are responsible for issuing reporting guidance and collecting the Y2K information from the DoD Components and submitting the information to OMB. We interviewed authorized DIST editors who are responsible for maintaining systems in the DIST, and we interviewed personnel from Electronic Data Services, the contractor responsible for the DIST.

Methodology

Audit Type, Dates, and Standards. We performed this economy and efficiency audit from January through April 1998 in accordance with auditing standards issued by the Comptroller General of the United States, as implemented by the Inspector General, DoD. We did not use computer-processed data or statistical sampling procedures for this audit.

Contacts During the Audit. We visited or contacted individuals and organizations within DoD. Further details are available on request.

Management Control Program. We did not review the management control program related to the overall audit objective because DoD recognized the Y2K issue as a material management control weakness area in the FY 1997 Annual Statement of Assurance. In addition, the audit focused on data in a database that is no longer used and its control weaknesses would not be included in future management control assurance assessments and statements.

Summary of Prior Coverage

The General Accounting Office and the Inspector General, DoD, have conducted multiple reviews related to Y2K issues. General Accounting Office reports can be accessed over the Internet at http://www.gao.gov. Inspector General, DoD, reports can be accessed over the Internet at http://www.dodig.osd.mil.

Appendix B. Comparison of Defense Integration Support Tools Database Data and February 1998 Reports

| | Missio DIST | n Critical Reports ² | Y2K Co | ompliant Reports ² | | vation Reports ² | | dation Reports ² | Implem DIST ¹ | nentation Reports ² | Comp DIST ¹ | pleted Reports ² |
|---|------------------------------------|------------------------------------|--------|----------------------------------|---------------------------------------|--------------------------------------|-----|--------------------------------|-----------------------------|-----------------------------------|---------------------------|--------------------------------|
| Air Force | | 472 | 1 | 159 | 75 | 178 | 0 | 29 | 39 | 8 | 65 | 0 |
| Army | 395 | 376 | 107 | 160 | 11 | 92 | 7 | 14 | 52 | 10 | 0 | 4 |
| BMDO | 6 | 3 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 |
| DCAA | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| DeCA | 11 | 9 | 0 | 0 | 6 | 6 | 3 | 3 | 0 | 0 | 0 | 0 |
| DFAS | 86 | 83 | 4 | 12 | 35 | 36 | 10 | 12 | 0 | 0 | 4 | 0 |
| DISA | 99 | 98 | 36 | 21 | 38 | 38 | 9 | 9 | 4 | . 4 | 14 | 13 |
| DLA | 37 | 33 | 0 | 17 | 10 | 6 | 3 | 8 | 5 | 1 | 14 | 1 |
| DSAA | 4 | 6 | 0 | 0 | 3 | 6 | 0 | 0 | 1 | 0 | 0 | 0 |
| DSWA | 15 | 9 | 8 | 2 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 4 |
| JLSC | 6 | 2 | 0 | 0 | 0 | 0 | 3 | 2 | 1 | 0 | 0 | 0 |
| JS | 8 | 5 | 1 | 0 | 4 | 3 | 0 | 0 | 0 | 0 | 0 | 0 |
| PACOM | i ³ 3 | 4 | . 0 | 0 | 3 | 4 | 0 | 0 | 0 | 0 | 0 | 0 |
| Navy ⁴ | 705 | 812 | 8 | 0 | 174 | 191 | 253 | 441 | 25 | 14 | 213 | 135 |
| OSIA | 3 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| WHS ⁵ | 55 | 99 | 24 | 54 | 19 | 25 | 27 | 13 | 9 | 7 | 0 | 0 |
| Total ⁶ | 1,625 | 2,014 | 189 | 426 | 379 | 588 | 316 | 532 | 136 | 46 | 310 | 158 |
| BMDO Ballistic Missile Defense Organization DSAA Defense Security Assistance Agency | | | | | | | | | | | | |
| DCAA | Defense Contract Audit Agency | | | | | DSWA Defense Special Weapons Agency | | | | | | |
| DeCA | Defense Commissary Agency | | | | JLSC | JLSC Joint Logistics Support Center | | | | | | |
| DFAS | Defense Finance and Accounting | | | JS | · · · · · · · · · · · · · · · · · · · | | | | | | | |
| | Service | | | | | PACOM U.S. Pacific Command | | | | | | |
| DISA | Defense Information Systems Agency | | | | OSIA On-Site Inspection Agency | | | | | | | |
| DLA | Defense Logistics Agency | | | | WHS | WHS Washington Headquarters Services | | | | | | |

¹We extracted the DIST data on January 21, 1998.

²The February 1998 quarterly reports were received by the DoD CIO from January 15 through January 23, 1998.

³For the unified commands under Joint Staff, only U.S. Pacific Command had mission-critical systems in the DIST for which they were listed as the sponsor component.

⁴The Navy listing includes the Marine Corps.

SWashington Headquarters Services includes several DoD Components, including the Inspector General, DoD; the Under Secretary of Defense for Personnel and Readiness; and the Under Secretary of Defense for Acquisition and Technology.

⁶The totals do not include the Assistant Secretary of Defense for Health Affairs and the DoD intelligence agencies.

Appendix C. Completeness Analysis of the Year 2000 Data Fields in the Defense Integration Support Tools Database

Percent of Complete DIST Y2K Data Fields February 1998

| | Hardware Compliant | Software Compliant | Application Compliant | Application Compliant Date | Phase | Strategy |
|-----------|-----------------------|-----------------------|--------------------------|----------------------------|------------|----------|
| Air Force | 99 | 99 | 44 | 4 | 99 | 88 |
| Army | 100 | 73 | 73 | 73 | 70 | 76 |
| ASD(HA) | 100 | 100 | 99 | 94 | 100 | 100 |
| BMDO | 33 | 33 | 33 | 17 | 100 | 33 |
| DeCA | 100 | 100 | 100 | 82 | 100 | 100 |
| DFAS | 62 | 64 | 94 | 69 | 43 | 100 |
| DISA | 99 | 99 | 99 | 86 | 0 | 0 |
| DLA | 86 | 86 | 86 | 78 | 86 | 86 |
| DoD IG | 100 | 100 | 100 | 0 | 0 | 50 |
| DSAA | 100 | 100 | 100 | 100 | 100 | 100 |
| JLSC | 17 | 83 | 100 | 100 | 100 | 50 |
| JS | 75 | 75 | 88 | 75 | 63 | 63 |
| Navy | 80 | 79 | 78 | 71 | 9 9 | 98 |
| OSIA | 67 | 67 | 67 | 67 | 67 | 67 |
| USMC | 87 | 85 | 99 | 78 | 97 | 81 |
| WHS | 100 | 100 | 100 | 69 | 100 | 60 |
| Averages' | 90 | 84 | 76 | 61 | 85 | 84 |

^{*} The averages are weighted to account for the number of systems that each DoD Component maintains in the DIST. For example, the Army has 395 systems in the DIST that are 100 percent complete for the Hardware Compliant data field, while conversely, the On-Site Inspection Agency has 3 systems in the DIST that are 67 percent complete for the same data field. The averages take into account the varying number of systems for each DoD Component.

Appendix C. Completeness Analysis of the Year 2000 Data Fields in the Defense Integration Support Tools Database

| - | Hardware Cost | Software Cost | Hardware Budget Shortfall | Software Budget Shortfall | Planned Termination Date | Actual Termination Date |
|------------|------------------|------------------|---------------------------------|---------------------------------|--------------------------------|-------------------------|
| Air Force | 64 | 46 | 65 | 46 | 5 | 0.5 |
| Army | 14 | 63 | 63 | 64 | 8 | 1.0 |
| ASD(HA) | 95 | 95 | 94 | 95 | 97 | 1.3 |
| BMDO | 17 | 17 | 17 | 17 | 0 | 0 |
| DeCA | 36 | 91 | 82 | 82 | 0 | 0 |
| DFAS | 94 | 97 | 94 | 94 | 86 | 0 |
| DISA | 92 | 94 | 91 | 92 | 16 | 0 |
| DLA | 81 | 81 | 81 | 81 | 0 | 0 |
| DoD IG | 0 | 0 | 0 | 0 | 50 | 0 |
| DSAA | 100 | 100 | 100 | 100 | 100 | 0 |
| JLSC | 100 | 100 | 100 | 100 | 0 | 0 |
| JS | 75 | 75 | 75 | 75 | 13 | 0 |
| Navy | 29 | 31 | 28 | 30 | 4 | 0.3 |
| OSIA | 33 | 33 | 33 | 33 | 0 | 0 |
| USMC | 55 | 55 | 50 | 53 | 16 | 1.3 |
| WHS | 96 | 96 | 96 | 96 | 0 | 0 |
| Averages * | 47 | 54 | 56 | 54 | 14 | 0.5 |

| ASD(HA) | Assistant Secretary of Defense (Health Affairs) |
|---------|---|
| BMDO | Ballistic Missile Defense Organization |
| DeCA | Defense Commissary Agency |
| DFAS | Defense Finance and Accounting Service |
| DISA | Defense Information Systems Agency |
| DLA | Defense Logistics Agency |
| DoD IG | Department of Defense, Inspector General |
| DSAA | Defense Security Assistance Agency |
| JLSC | Joint Logistics Support Center |
| JS | Joint Staff |
| OSIA | On-Site Inspection Agency |
| USMC | United States Marine Corps |
| WHS | Washington Headquarters Services |
| | |

^{*} See footnote on previous page.

Appendix D. Report Distribution

Office of the Secretary of Defense

Under Secretary of Defense for Acquisition and Technology

Director, Defense Procurement

Director, Defense Logistics Studies Information Exchange

Under Secretary of Defense (Comptroller)

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Inspector General, Defense Intelligence Agency

Non-Defense Federal Organizations and Individuals

Chief Information Officer, General Services Administration
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Office of Information and Regulatory Affairs
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General Accounting Office
Director, Defense Information and Financial Management Systems, Accounting and
Information Management Division, General Accounting Office

Chairman and ranking minority member of each of the following congressional committees and subcommittees:

Senate Special Committee on the Year 2000 Technology Problem

Senate Committee on Appropriations

Senate Subcommittee on Defense, Committee on Appropriations

Senate Committee on Armed Services

Senate Committee on Governmental Affairs

House Committee on Appropriations

House Subcommittee on National Security, Committee on Appropriations

House Committee on Government Reform and Oversight

House Subcommittee on Government Management, Information, and Technology, Committee on Government Reform and Oversight

House Subcommittee on National Security, International Affairs, and Criminal Justice, Justice, Committee on Government Reform and Oversight

House Committee on National Security

Part III - Management Comments

Office of Assistant Secretary of Defense (Command, Control, Communications, and Intelligence) Comments



OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE 6000 DEFENSE PENTAGON WASHINGTON, DC 20301-6000



June 10, 1998

MEMORANDUM FOR INSPECTOR GENERAL OF THE DEPARTMENT OF DEFENSE

SUBJECT: Audit Report on DoD Year 2000 Computing Problem Reports: Lessons Learned from the Defense Integration Support Tools Database (Project No. 8AS-0017)

This is in response to your request to review and comment on your May 4, 1998, audit report, subject as above. We concur with your recommendations with comments. We feel that the new Year 2000 (Y2K) database addresses your recommendations and will satisfy basic Y2K tracking requirements

We request that you incorporate this memorandum along with the attachment in the final audit report.

Arthur L. Morey Senior Civilian Official

Attachment



Office of Assistant Secretary of Defense (Command, Control, Communications, and Intelligence) Comments

Response to OIG, DoD, Audit Report, "DoD Year 2000 Computing Problem Reports: Lessons Learned from the Defense Integration Support Tools Database" IG Project No. 8AS-0017, May 4, 1998.

Recommendation #1: Immediately implement a replacement database for the Defense Integration Support Tools database to track, monitor, report and oversee DoD Year 2000 efforts.

Response: We concur with the recommendation and have developed a replacement database which will track, monitor and report DoD Y2K efforts at a high level. Steps are being taken to prevent a repetition of the problems associated with the DIST. The first round of populating the database occurred in May 1998. On May 28, 1998, the Component representatives met to discuss the data fields and made basic directional decisions on data field modifications and response options.

Recommendation \$2: Apply the lessons learned from the Defense Integration Support Tools Database to the replacement database.

Response: We concur. The new database being used for Y2K tracking is being developed with the contractor that assisted with the DIST. The use of the former DIST contractor provides the technical skills and corporate knowledge associated with the DIST Y2K effort as well as a knowledge of the pitfalls and dangers that were faced with the DIST effort.

a. Provide reliable information for tracking, monitoring, reporting, and overseeing DoD Year 2000 efforts.

Response: We concur. The new database being used for Y2K tracking was developed in a joint effort with the JCS, Component representatives and Y2K Quarterly Report personnel. Input from OMB was also included. The result is an improved approach to the tracking of information with the detailed information remaining in the Component level database.

b. Provide adequate management controls for data entry and require a high-level DoD Component official to certify the validity of the data.

Response: We concur. The new database has improved controls and will allow input from the Component Y2K designated offices, eliminating the number of individual action officers inputting data through the web.

c. Allow for flexibility to accommodate changes in the Office of Management and Budget reporting requirements.

Office of Assistant Secretary of Defense (Command, Control, Communications, and Intelligence) Comments

Response: We concur. The new database maps more directly to the OMB reporting requirements and the added data that the OSD feels is important to collect. Some of the added data fields, specifically address future OMB and/or OSD requirements.

d. Be compatible with DoD Component internal databases for effective importing of data.

Response: We concur. The Components internally maintained databases are being used, for input into the new OSD Y2K database. The Navy is currently building it's own database with the requirements and design of the OSD Y2K database as the model. Other Components databases have been mapped to feed the Y2K database.

e. Allow for appropriate menu choices to eliminate blank fields.

Response: We concur. At the Component database representative meeting held on May 28, 1998, a review of all the data fields was completed. Fields that were not of value or appropriate were deleted. However, some data fields will remain as blank entries in anticipation of future requirements.

Audit Team Members

This report was prepared by the Acquisition Management Directorate, Office of the Assistant Inspector General for Auditing, DoD.

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- B. DATE Report Downloaded From the Internet: 09/15/99
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